

Notice of Allowability

Application No.

10/826,335

Examiner

Abbas I. Abdulsalam

Applicant(s)

YAMASHITA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/30/04.
2. ☒ The allowed claim(s) is/are 1-4.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

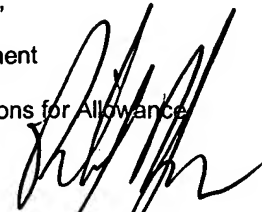
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-4 are allowed.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

Pae et al. (USPN 6917350) teach a driving circuit of an active matrix method in a display device, the driving circuit including a switching unit switching a current applied from the driving unit to the display device, and a deviation compensator detecting the current applied to the display device by switching of a second switch, and controlling a control voltage, thereby compensating luminance deviation of the display device (see Fig. 2).

Mikami et al. (USPN 6611107) teach a circuit configuration diagram of a pixel as shown in Fig. 4 in which thin film transistor (driving TFT) 7 is used as a driving element, a memory control circuit comprising samples and holds and including a main sampling switch element 20a, an auxiliary sampling switch element 20b, a sampling capacitor 5, a main driving switch element 21a, and an auxiliary driving switch element 21b.

Regarding claim 1, prior art does not teach a display device to which a video signal is supplied as a signal current, comprising: a plurality of pixel circuits arrayed in a matrix; data lines laid for every column of the matrix array of the pixel circuits and supplied with a signal current in accordance with luminance information; and a horizontal selector having a plurality of sample and hold circuits provided corresponding to the data lines and sampling and holding the

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input video signal current and for sequentially operating the sample and hold circuits, point sequentially sampling and holding video signals at all sample and hold circuits, and outputting current values sampled and held in the plurality of sample and hold circuits to corresponding data lines, wherein each sample and hold circuit comprises: a field effect transistor having a source connected to a predetermined potential, a first switch connected between a drain and a gate of the field effect transistor, a second switch connected between the drain of the field effect transistor and a supply line of the signal current, a capacitor connected between the gate of the field effect transistor and a predetermined potential, and a leakage elimination circuit for supplying a current corresponding to the sampled signal current to the drain of the field effect transistor during a period when the sample and hold operation is finished and another sample and hold circuit performs a sample and hold operation.

Regarding claim 3, prior art does not teach a display device to which a video signal is supplied as a signal current, comprising: a plurality of pixel circuits arrayed in a matrix; data lines laid for every column of the matrix array of the pixel circuits and supplied with a signal current in accordance with luminance information; and a horizontal selector having a plurality of sample and hold circuits provided corresponding to the data lines and sampling and holding the input video signal current and for sequentially operating the sample and hold circuits, point sequentially sampling and holding a video signal in all sample and hold circuits, and outputting current values sampled and held at the plurality of sample and hold circuits to corresponding data lines, wherein each sample and hold circuit comprises a first field effect transistor having a source connected to a predetermined potential, a second field effect transistor having a source

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connected to a drain of the first field effect transistor, a first switch connected between a drain and a gate of the second field effect transistor, a second switch connected between the drain of the second field effect transistor and a supply line of the signal current, a third switch connected between the drain and a gate of the first field effect transistor, a first capacitor connected between the gate of the first field effect transistor and a predetermined potential, a second capacitor connected between the gate of the second field effect transistor and a predetermined potential, and a leakage elimination circuit for supplying a current corresponding to the sampled signal current to the drain of the second field effect transistor during a period when the sample and hold operation is finished and another sample and hold circuit is performing a sample and hold operation.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abbas I. Abdulsalam whose telephone number is 571-272-7685. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abbas Abdulsalam

Examiner

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February 26, 2007



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